

ABSTRACT OF THE DISCLOSURE

During A/D conversion of time-discrete analog input values, a quantizer is used in which an analog quantization error is obtained after every conversion. The quantization error is stored in a buffer, and fed back through a subtracter to at least one input value of a subsequent conversion. The quantizer has a conversion frequency, which is more than double the maximum frequency contained in input values, so the conversion operates in an oversampling mode. During feedback the quantization errors of several conversions, prior to a varying number of conversions, are preferably fed back to an input value. The invention can be used with all conventional quantizers, for which an analog quantization error can be obtained, so it is possible through a noise shaping procedure to shift quantization noise into higher-frequency spectral ranges to improve the signal-to-noise ratio or reduce the quantization noise in a useful spectral range.

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